## **DECISION**

# ENVIRONMENTAL ASSESSMENT: REDUCING MAMMAL DAMAGE IN THE STATE OF NORTH CAROLINA

#### I. PURPOSE

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program has prepared an Environmental Assessment (EA) to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage, including conflicts and threats, to agricultural resources, property, natural resources, and human safety associated with mammals (USDA 2011). The EA documents the need for mammal damage management in the State and assesses potential impacts on the human environment of three alternatives to address that need. WS' proposed action in the EA would continue an integrated damage management program to fully address the need to manage damage and threats associated with mammals in the State.

Damage and threats of damage associated with the following mammal species were addressed in the EA: bobcat (Felis rufus), coyote (Canis latrans), gray fox (Urocyon cinereoargenteus), red fox (Vulpes vulpes), raccoon (Procyon lotor), Virginia opossum (Didelphis virginiana), striped skunk (Mephitis mephitis), river otter (Lutra canadensis), woodchuck (Marmota monax), American mink (Mustela vison), feral swine (Sus scrofa), feral cat (Felis domesticus), feral dog (Canis familiaris), gray squirrel (Sciurus carolinensus), Eastern cottontail (Sylvilagus floridanus), and black bear (Ursus americanus).

The EA evaluated the issues and alternatives associated with WS' potential participation in managing damage and threats caused by mammals in the State. The EA was prepared by WS to determine if the proposed action could have a significant impact on the quality of the human environment. Specifically, the EA was prepared to: 1) facilitate planning and interagency coordination, 2) streamline program management, 3) evaluate the potential environmental consequences of the alternatives related to the issues of managing damage caused by mammals, and 4) clearly communicate to the public the analysis of individual and cumulative impacts.

#### II. NEED FOR ACTION

The need for action arises from requests for assistance received by WS to reduce and prevent damage associated with mammals from occurring to four major categories: agricultural resources, natural resources, property, and threats to human safety. WS would only conduct mammal damage management after receiving a request for assistance. Before initiating mammal damage management activities in the State, a Memorandum of Understanding, cooperative service agreement, or other comparable document would be signed between WS and the entity requesting assistance which lists all the methods the property owner or manager would allow to be used on property they own and/or manage.

WS' activities would only be conducted when requested and only when damage or a threat is occurring to agricultural resources, natural resources, property, or posing a threat to human health and safety. WS may also be requested to participate in disease surveillance and monitoring in the event of a disease outbreak or potential outbreak in a mammal population.

## III. SCOPE OF ANALYSES IN THE EA

The EA evaluates mammal damage management under three alternatives to reduce threats to human health and safety and to resolve damage to property, natural resources, and agricultural resources wherever such management is requested by a cooperator. The analyses in the EA are intended to apply to

any action taken by WS to alleviate damage or threats of damage associated with mammals that may occur in any locale and at any time within the State of North Carolina. The EA emphasizes major issues as they relate to specific areas; however, the issues addressed apply wherever mammal damage and the resulting damage management activities could occur. The standard WS Decision Model (Slate et al. 1992, USDA 1997) would be the site-specific procedure for individual actions conducted by WS.

The North Carolina Wildlife Resources Commission (NCWRC) has jurisdiction over the management of mammals and has specialized expertise in identifying and quantifying potential adverse effects to the human environment from mammal damage management activities. Damage management activities conducted by WS under the alternatives would only occur when permitted by the NCWRC through the issuance of appropriate permits, when applicable. Therefore, the actions evaluated in this EA are the use of those methods available under the alternatives and the employment of those methods by WS to manage or prevent damage and threats associated with mammals from occurring when requested by the appropriate resource owner or manager and when permitted by the NCWRC, as required.

The EA was made available to the public for review and comment by a legal notice published in *The News and Observer* newspaper on January 20, 2012. A notice of availability and the EA were also made available for public review and comment on the APHIS website at <a href="http://www.aphis.usda.gov/wildlife\_damage/nepa.shtml">http://www.aphis.usda.gov/wildlife\_damage/nepa.shtml</a> beginning on January 12, 2012. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in mammal damage management in the State. The public involvement process ended on February 24, 2012. WS received one comment letter during the public comment period in support of the proposed action alternative.

## IV. RELATIONSHIP OF THE EA TO OTHER ENVIRONMENTAL DOCUMENTS

WS has developed a programmatic Final Environmental Impact Statement (FEIS) that addressed the need for wildlife damage management (USDA 1997). The FEIS contains a detailed discussion of the potential impacts to the human environment from wildlife damage management methods and techniques employed by WS, including methods used to manage damage associated with mammals. Pertinent information in the FEIS has been incorporated into the EA and this decision document by reference.

WS has developed an EA that analyzed the environmental effects of WS' involvement in the funding of and participation in oral rabies vaccination programs to eliminate or stop the spread of raccoon rabies in a number of eastern states (including North Carolina) and gray fox and coyote rabies in Texas (USDA 2005a). In addition, the WS program in North Carolina developed an EA to evaluate the need for and alternatives to address damage and threats of damage associated with white-tailed deer (*Odocoileus virginianus*) in the State (USDA 2005b).

## V. AUTHORITY AND COMPLIANCE

WS is authorized by law to reduce damage caused by wildlife through the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b), as amended and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c). Management of mammal species in the State is the responsibility of the NCWRC. As the authority for the management of mammals, the NCWRC was consulted during the development of the EA and provided input to ensure an interdisciplinary approach according to the National Environmental Policy Act (NEPA) and agency mandates, policies, and regulations.

The EA and this Decision ensures WS' actions comply with the NEPA, with the Council on Environmental Quality guidelines (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All mammal damage management activities, including disposal requirements, are conducted

consistent with: 1) the Endangered Species Act of 1973, 2) the Federal Insecticide, Fungicide, and Rodenticide Act, 3) applicable Executive Orders, and 4) applicable Federal, State, and local laws, regulations and policies, including WS' Directives.

## VI. DECISIONS TO BE MADE

Based on the scope of the EA, the decisions to be made are: 1) should WS conduct mammal damage management to alleviate damage to agriculture, property, natural resources, and threats to human safety, 2) should WS conduct disease surveillance and monitoring in mammal populations when requested by the NCWRC and other agencies, 3) should WS implement an integrated wildlife damage management strategy, including technical assistance and direct operational assistance, to meet the need for mammal damage management in North Carolina, 4) if not, should WS attempt to implement one of the alternatives to an integrated damage management strategy as described in the EA, and 5) would the proposed action or any of the alternatives result in adverse impacts to the environment requiring the preparation of an Environmental Impact Statement (EIS).

#### VII. AFFECTED ENVIRONMENT

Mammal damage or threats of damage can occur statewide in North Carolina where ever mammals occur. However, mammal damage management would only be conducted by WS when requested by a landowner or manager and only on properties where a cooperative service agreement or other comparable document has been signed between WS and a cooperating entity. Upon receiving a request for assistance, mammal damage management activities could be conducted on federal, state, tribal, municipal, and private properties in North Carolina. The areas of the proposed action could include areas in and around commercial, industrial, public, and private buildings, facilities and properties. Examples of areas where mammal damage management activities could be conducted are, but are not necessarily limited to: state, county, municipal and federal natural resource areas, park lands, and historic sites; state and interstate highways and roads; railroads and their right-of-ways; property in or adjacent to subdivisions, businesses, and industrial parks; timberlands, croplands, and pastures; private and public property where burrowing mammals cause damage to structures, dikes, ditches, ponds, and levees; public and private properties in rural/urban/suburban areas where mammals cause damage to landscaping and natural resources, property, and are a threat to human safety through the spread of disease. The area would also include airports and military airbases where mammals are a threat to human safety and to property; areas where mammals negatively impact wildlife, including T&E species; and public property where mammals are negatively impacting historic structures, cultural landscapes, and natural resources.

#### VIII. ISSUES ADDRESSED IN THE ANALYSIS OF ALTERNATIVES

Issues related to wildlife damage management were initially identified and defined during the development of WS' programmatic FEIS (USDA 1997). Issues related to mammal damage management in North Carolina were defined and preliminary alternatives were identified through consultation with the NCWRC. The EA was also made available to the public for review and comment through notices published in local media and through direct notification of interested parties.

Chapter 2 of the EA describes in detail the issues considered and evaluated in the EA (USDA 2011). The following issues were identified as important to the scope of the analysis (40 CFR 1508.25) with each alternative evaluated in the EA relative to the impacts on the major issues:

- Issue 1 Effects of Damage Management Activities on Target Mammal Populations
- Issue 2 Effects on Non-target Wildlife Species Populations, Including T&E Species
- Issue 3 Effects of Damage Management Methods on Human Health and Safety

- Issue 4 Effects on the Socio-cultural Elements and Economics of the Human Environment
- Issue 5 Humaneness and Animal Welfare Concerns of Methods
- Issue 6 Effects of Mammal Damage Management Activities on the Regulated Harvest of Mammals

### IX. ISSUES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

In addition to those issues analyzed in detail, several issues were identified during the development of the EA but were not considered in detail. The rationale for the decision not to analyze those issues in detail is discussed in the EA. Those issues not analyzed in detail were:

- Appropriateness of Preparing an EA (Instead of an EIS) For Such a Large Area
- WS' Impact on Biodiversity
- A Loss Threshold Should Be Established Before Allowing Lethal Methods
- Mammal Damage Management Should Not Occur at Taxpayer Expense
- Cost Effectiveness of Management Methods
- Effectiveness of Mammal Damage Management Methods
- Mammal Damage Should Be Managed By Private Nuisance Wildlife Control Agents
- Effects from the Use of Lead Ammunition in Firearms
- A Site Specific Analysis Should be Made for Every Location Where Mammal Damage Management Would Occur

### X. DESCRIPTION OF THE ALTERNATIVES

The following three alternatives were developed to respond to the issues identified in Chapter 2 of the EA (USDA 2011). A detailed discussion of the effects of the alternatives on the issues is described in the EA under Chapter 4; below is a summary of the alternatives.

# Alternative 1 - Continue the Current Adaptive Integrated Approach to Managing Mammal Damage (Proposed Action/No Action)

The proposed action would continue the current program of employing an integrated damage management approach using methods, as appropriate, to reduce damage associated with mammals in the State. An integrated damage management strategy would be recommended and used, encompassing the use of practical and effective methods of preventing or reducing damage while minimizing harmful effects of damage management measures on people, other species, and the environment. Non-lethal methods would be given first consideration in the formulation of each damage management strategy, and would be recommended or implemented when practical and effective before recommending or implementing lethal methods. However, non-lethal methods would not always be applied as a first response to each damage problem. The most appropriate response could often be a combination of non-lethal and lethal methods, or there could be instances where application of lethal methods alone would be the most appropriate strategy.

All methods addressed in Appendix B of the EA could be employed by WS to resolve requests for assistance to manage damage associated with mammals in the State. Using the WS Decision model discussed in the EA, WS would employ methods singularly or in combination in an integrated approach to alleviate damage caused by mammals.

## Alternative 2 - Mammal Damage Management by WS through Technical Assistance Only

Under the technical assistance only alternative, WS would address every request for assistance with technical assistance only. Technical assistance would provide those persons seeking assistance with information and recommendations on mammal damage management that those cooperators could implement without WS' direct involvement in the action. Technical assistance could be employed through personal or telephone consultations and through site visits. Under this alternative, the immediate burden of resolving threats or damage associated with mammals would be placed on those persons experiencing damage. Those persons could employ those methods recommended by WS, could employ other methods, or could take no further action.

Mammals could still be lethally taken to alleviate damage under this alternative when committing or about to commit damage or posing a human health and safety threat in accordance with permits issued by the NCWRC, when required. In addition, most of the mammal species addressed could continue to be taken during the regulated hunting and/or trapping seasons for those species in the State. Under this alternative the level of take is likely to remain at least similar to the levels of take that occurred previously but could increase to levels addressed under the proposed action alternative even if WS only provides technical assistance. The lack of direct operational assistance provided by WS under this alternative is not likely to result in a decline in the number of mammals lethally taken in the State since WS' take is likely not additive to the number of mammals that would have been taken if WS had not participated in those activities. Similar to Alternative 1, those methods described in Appendix B would be available to those persons experiencing damage or threats associated with mammals in the State except for the use of immobilizing drugs and euthanasia chemicals. All other methods described in Appendix B of the EA would be available to those persons experiencing damage.

## Alternative 3 - No Mammal Damage Management Conducted by WS

Under the no involvement alternative, WS would not be involved with any aspect of mammal damage management activities in North Carolina. All requests for assistance received by WS would be referred to the NCWRC and/or other entities. The take of mammals could continue to occur under this alternative when damage or threats were occurring in accordance with permits issued by the NCWRC, when required, and during the regulated hunting and/or trapping season in the State. Most of the methods described in Appendix B of the EA under this alternative to alleviate mammal damage and threats would be available under any of the alternatives. The only methods that would not be available to manage damage caused by mammals under this alternative would be immobilizing drugs and euthanasia chemicals.

## XI. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

Additional alternatives were also evaluated but were not considered in detail in the EA with rationale provided. The alternatives analyzed but not in detail included:

- Non-lethal Methods Implemented Before Lethal Methods
- Use of Non-lethal Methods Only by WS
- Use of Lethal Methods Only by WS
- Trap and Translocate Mammals Only
- Reducing Damage by Managing Mammal Populations through the Use of Reproductive Inhibitors
- Compensation for Mammal Damage
- Short Term Eradication and Long Term Population Suppression

- Bounties
- Trap-Neuter-Release Program for Feral and Free-ranging Cats

### XII. STANDARD OPERATING PROCEDURES FOR MAMMAL DAMAGE MANAGEMENT

The current WS program uses many standard operating procedures. Standard operating procedures are discussed in detail in Chapter 5 of WS' programmatic FEIS (USDA 1997) and in Chapter 3 of the EA (USDA 2011). Those standard operating procedures would be incorporated into activities conducted by WS when addressing mammal damage and threats in North Carolina under the proposed action alternative (Alternative 1) and when applicable, under the technical assistance alternative (Alternative 2). If the no involvement by WS alternative (Alternative 3) is selected, the lack of assistance by WS would preclude the employment or recommendation of those standard operating procedures addressed in the EA by WS.

# XIII. ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL

The EA analyzes the environmental consequences of each alternative as that alternative relates to the issues identified to provide information needed for making informed decisions in selecting the appropriate alternative to address the need for action. The following resource values in North Carolina are not expected to be significantly impacted by any of the alternatives analyzed in the EA: soils, geology, minerals, water quality/quantity, flood plains, wetlands, critical habitats (areas listed in threatened and endangered (T&E) species recovery plans), visual resources, air quality, prime and unique farmlands, aquatic resources, timber, and range. The activities proposed in the alternatives would have a negligible effect on atmospheric conditions including the global climate. Meaningful direct or indirect emissions of greenhouse gases would not occur as a result of any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act and Executive Order 13514.

Chapter 4 of the EA analyzes the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on those major issues identified in the EA. The proposed action/no action alternative serves as the baseline for the analysis and the comparison of expected impacts among the alternatives. The analysis also takes into consideration mandates, directives, and the procedures of WS and the NCWRC. The analyses in Chapter 4 of the EA indicate the potential impacts to the quality of the human environment would be similar across the alternatives.

# Issue 1 - Effects of Damage Management Activities on Target Mammal Populations

Under the proposed action, WS would incorporate non-lethal and lethal methods described in Appendix B of the EA in an integrated approach in which all or a combination of methods could be employed to resolve a request for assistance. WS could recommend and operationally employ both non-lethal and lethal methods, as governed by Federal, State, and local laws and regulations under the proposed action.

Non-lethal methods can disperse or otherwise make an area unattractive to mammals that are causing damage; thereby, reducing the presence of mammals at the site and potentially the immediate area around the site where non-lethal methods are employed. Non-lethal methods would be given priority when addressing requests for assistance (WS Directive 2.101). However, non-lethal methods would not necessarily be employed to resolve every request for assistance if deemed inappropriate by WS' personnel using the WS Decision Model, especially in situations where the requesting entity has already attempted to resolve the damage or threats of damage using non-lethal methods. Non-lethal methods are used to excluded, harass, and disperse target wildlife from areas where damage or threats are occurring. When effective, non-lethal methods would disperse mammals from the area resulting in a reduction in the presence of those mammals at the site where those methods were employed. Non-lethal methods are

generally regarded as having minimal impacts on overall populations of wildlife since those species are unharmed. The continued use of non-lethal methods often leads to the habituation of mammals to those methods which can decrease the effectiveness of those methods. Lethal methods are often employed to reinforce non-lethal methods and to remove mammals that have been identified as causing damage or posing a threat to human safety. The use of lethal methods would result in local reductions of mammals in the area where damage or threats were occurring. The number of mammals removed from the population using lethal methods would be dependent on the number of requests for assistance received, the number of mammals involved with the associated damage or threat, and the efficacy of methods employed.

Mammals that could be taken by WS under the proposed action could be taken by those persons experiencing damage or threats in the absence of WS' direct involvement under the other alternatives since the take of mammals can occur when a permit has been issued by the NCWRC, when required. In addition, mammals could be lethally taken to alleviate damage or reduce threats during the regulated hunting and/or trapping seasons in the State. Since the lack of WS' direct involvement does not preclude the taking of mammals by those persons experiencing damage or threats, WS' involvement in the taking of those mammals under the proposed action would not be additive to the number of mammals that could be taken by other entities in the absence of WS' involvement. The number of mammals taken annually would likely be similar across the alternatives, since the take of mammals could occur even if WS was not directly involved with providing assistance under Alternative 2 and Alternative 3. Those activities proposed, including the proposed take of mammals, under Alternative 1 would not be additive to the number of mammals that could be taken by other entities under the other alternatives despite the lack of WS' involvement.

In addition, most non-lethal and lethal methods available for resolving damage or threats associated with mammals would be available under any of the alternatives. Immobilizing drugs and euthanasia chemicals would be the only methods that would not be available under all of the alternatives. Based on the evaluation in the EA (USDA 2011), the availability of immobilizing drugs and euthanasia chemicals under the proposed action alternative would not pose significant environmental risks when used by trained WS' personnel and in accordance with the use guidelines.

Based on those quantitative and qualitative parameters addressed in the EA, the proposed take levels of mammal species addressed under the proposed action alternative (Alternative 1) would be considered of low magnitude when compared to population trend data, population estimates, and/or harvest data. The number of mammals lethally taken annually under the alternatives is likely to be similar since the take of mammals could occur despite no involvement by WS. WS does not have the authority to regulate the number of mammals taken annually by other entities. WS' take of mammals would only occur at levels authorized and only when permitted by the NCWRC for those species for which a permit is required for take.

In addition, based on the levels of take that have occurred previously by WS and by other entities and in anticipation of the NCWRC permitting the take of mammals at levels addressed in the EA, the cumulative take of levels addressed are also of low magnitude when compared to those quantitative and qualitative parameters addressed in the EA. The permitting of take by the NCWRC ensures that cumulative take levels occur within allowable levels to maintain species' populations and meet population objectives for each species.

## Issue 2 - Effects on Non-target Wildlife Species Populations, Including T&E Species

Another issue often raised is the potential impacts to populations of wildlife that could be taken as non-targets during damage management activities. While every effort is made to minimize the risks of

lethally taking non-target wildlife, the potential does exist for the unintentional take of non-targets during damage management activities.

The non-targets taken previously by WS are representative of non-targets that could be lethally taken by WS under the proposed action alternative. Although additional species of non-targets could be lethally taken by WS, take of individuals from any species is not likely to increase substantively above the number of non-targets taken annually by WS during previous damage management activities. In addition, all of the species lethally taken or live-captured from FY 2006 through FY 2010 are also considered targets species in the EA and the level of take analyzed for each species under Issue 1 includes non-target take that could occur by WS. Therefore, the take of those species is evaluated cumulatively under Issue 1, including take that could occur when a species is considered a target or non-target.

Under the no involvement by WS alternative, WS would not be directly involved with any aspect of mammal damage management; therefore, no direct impacts to non-targets would occur from WS. Under the technical assistance only alternative, WS could provide information on the proper use of methods and provide demonstration on the use of methods but would not be directly involved with using methods to alleviate mammal damage or threats. Similar to the no WS involvement alternative, under the technical assistance alternative, if methods are applied as intended and with regard for non-target hazards, those methods would not result in the decline in non-target species' populations. If requestors are provided technical assistance but do not implement any of the recommended actions and takes no further action. the potential impacts to non-targets would be lower compared to the proposed action. If those persons requesting assistance implement recommended methods appropriately and as instructed or demonstrated, the potential impacts to non-targets would be similar to the proposed action. Methods or techniques not implemented as recommended or used inappropriately would likely increase risks to non-targets. When employing direct operational assistance under the proposed action alternative, WS could employ methods and use techniques which would avoid non-target take as described in Chapter 3 of the EA under the standard operating procedures and those measures and procedures discussed in WS' programmatic FEIS (USDA 1997).

The ability to reduce damage and threats caused by mammals would be variable based upon the skills and abilities of the person implementing damage management actions under Alternative 2 and Alternative 3. If those methods available are applied as intended, risks to non-targets would be minimal to non-existent. If methods available are applied incorrectly or applied without knowledge of wildlife behavior, risks to non-target wildlife would be higher under any of the alternatives. If frustration from the lack of available assistance under Alternative 2 and Alternative 3 causes those persons experiencing mammal damage to use methods that are not legally available for use, risks to non-targets would be higher under those alternatives. People have resorted to the use of illegal methods to resolve wildlife damage that have resulted in the lethal take of non-target wildlife (USDA 1997). Under the proposed action alternative, those persons could request direct operational assistance from WS to reduce damage and threats occurring which increases the likelihood that non-target species would be unaffected by damage management activities.

Based on a review of those T&E species listed in the State during the development of the EA (see Appendix C in the EA), WS determined that activities conducted pursuant to the proposed action would not likely adversely affect those species listed in the State by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Services nor their critical habitats. Based on a review of the proposed action and the methods available under the proposed action, WS has determined that the proposed mammal damage management program would not adversely affect any of the species listed by the NCWRC in the State. The USFWS and the NCWRC have concurred with WS' determination.

## Issue 3 - Effects of Damage Management Methods on Human Health and Safety

The threats to human safety of methods available would be similar across the alternatives since those methods would be available across the alternatives. However, the expertise of WS' employees in using those methods available likely would reduce threats to human safety since WS' employees are trained and knowledgeable in the use of those methods. If methods are used incorrectly or without regard for human safety, risks to human safety would increase under any of the alternatives that those methods could be employed. The EA determined that the availability of immobilizing drugs and euthanasia chemicals under the proposed action alternative would not increase risks to human safety from the use of those methods under the proposed action alternative (USDA 2011). Although risks do occur from the use of immobilizing drugs and euthanasia chemicals, when those methods are used in consideration of human safety, the use of those methods would not pose additional risks to human safety beyond those associated with the use of other methods.

# Issue 4 - Effects on the Socio-cultural Elements and Economics of the Human Environment

Mammals often provide aesthetic enjoyment to many people in the State through observations, photographing, and knowing they exist as part of the natural environment. Methods available that could be employed under each of the alternatives would result in the dispersal, exclusion, or removal of individuals or small groups of mammals to resolve damage and threats. Therefore, the use of methods often results in the removal of mammals from the area where damage is occurring or the dispersal of mammals from an area. Since methods available are similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of mammals. However, even under the proposed action alternative, the dispersal and/or lethal take of mammals under the alternatives would not reach a magnitude that would prevent the ability to view mammals outside of the area where damage was occurring. The effects on the aesthetic values of mammals would therefore be similar across the alternatives and would be minimal.

#### Issue 5 - Humaneness and Animal Welfare Concerns of Methods

The issue of humaneness was also analyzed in detail in relationship to methods available under each of the alternatives. Since many methods addressed in Appendix B of the EA are available under all the alternatives, the issue of method humaneness would be similar for those methods across all the alternatives. As stated previously, immobilizing drugs and euthanasia chemicals are the only methods that would not be available under all the alternatives. The ability of WS to provide direct operational assistance under the proposed action alternative would ensure methods are employed by WS as humanely as possible. Under the other alternatives, methods could be used inhumanely if used inappropriately or without consideration of mammal behavior. However, the efficacy of methods employed by a cooperator would be based on the skill and knowledge of the requestor in resolving the threat to safety or damage situation despite WS' demonstration. A lack of understanding of the behavior of mammals or improperly identifying the damage caused by mammals along with inadequate knowledge and skill in using methodologies to resolve the damage or threat could lead to incidents with a greater probability of being perceived as inhumane under Alternative 2 and Alternative 3. Despite the lack of involvement by WS under Alternative 3 and WS' limited involvement under Alternative 2, those methods perceived as inhumane by certain individuals and groups would still be available to the general public to use to resolve damage and threats caused by mammals.

## Issue 6 - Effects of Mammal Damage Management Activities on the Regulated Harvest of Mammals

Hunting and/or trapping seasons in the State exist for all of the mammal species addressed in the EA, except for feral cats and feral dogs. WS would have no impact on the ability to harvest those species

during the annual hunting and/or trapping seasons for those species under Alternative 2 and Alternative 3 since WS would not be directly involved with managing damage associated with those species. However, resource/property owners may remove mammals under permits issued by the NCWRC, when required, resulting in impacts similar to the proposed action alternative under Alternative 2 and Alternative 3. The recommendation of non-lethal methods could disperse or exclude mammals from areas under any of the alternatives which could limit the ability of those persons interested to harvest mammals in the damage management area. However, the populations of mammals would be unaffected directly by WS under the technical assistance alternative (Alternative 2) and the no involvement alternative (Alternative 3). The NCWRC could continue to regulate mammal populations through adjustments in allowed take during the regulated harvest season and through permits to manage damage or threats of damage.

The magnitude of lethal take addressed in the proposed action would be low when compared to the mortality of those mammal species from all known sources. When WS' proposed take of mammals was included as part of the known mortality of mammals and compared to the known populations of those species, the impact on a species' population was below the level of removal required to lower population levels. The NCWRC would determine the number of mammals taken annually by WS through the issuance of permits, when required.

With oversight by the NCWRC, the number of mammals allowed to be taken by WS would not limit the ability of those persons interested to harvest mammals during the regulated season. All take by WS would be reported to the NCWRC annually to ensure take by WS is incorporated into population management objectives established for mammal populations. Based on the limited take proposed by WS and the oversight by the USFWS, WS' take annually would have no effect on the ability of those persons interested to harvest mammals during the regulated harvest season.

### XIV. CUMULATIVE IMPACTS OF THE PROPOSED ACTION

No significant cumulative environmental impacts are expected from any of the three alternatives, including the proposed action. Under the proposed action, the lethal removal of mammals by WS would not have significant impacts on statewide mammal populations when known sources of mortality are considered. No risk to public safety is expected when activities are provided and expected by requesting individuals under Alternative 1 and Alternative 2 since only trained and experienced personnel would conduct and/or recommend damage management activities. There is a slight increased risk to public safety when persons who reject assistance and recommendations and conduct their own activities under Alternative 2, and when no assistance is provided under Alternative 3. However, under all of the alternatives, those risks would not be to the point that the impacts would be significant. The analysis in this EA indicates that an integrated approach to managing damage and threats caused by mammals would not result in significant cumulative adverse impacts on the quality of the human environment.

### XV. DECISION AND RATIONALE

Based on the analyses in the EA of the alternatives developed to address those issues, including individual and cumulative impacts of those alternatives, the following decision has been reached:

#### Decision

I have carefully reviewed the EA prepared to meet the need for action. I find the proposed action alternative (Alternative 1) to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA adequately addresses the identified issues which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or the quality of the human

environment are likely to occur from the proposed action, nor does the proposed action constitute a major federal action. Therefore, the analysis in the EA does not warrant the completion of an EIS.

Based on the analyses in the EA, the issues identified are best addressed by selecting Alternative 1 (proposed action/no action) and applying the associated standard operating procedures discussed in Chapter 3 of the EA. Alternative 1 successfully addresses (1) mammal damage management using a combination of the most effective methods and does not adversely impact the environment, property, human health and safety, target species, and/or non-target species, including T&E species; (2) it offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues are considered. Further analysis would be triggered if changes occur that broaden the scope of mammal damage management activities in the State, that affect the natural or human environment, or from the issuance of new environmental regulations. Therefore, it is my decision to implement the proposed action/no action alternative (Alternative 1) as described in the EA.

## Finding of No Significant Impact

Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 1) would have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an EIS should not be prepared. This determination is based on the following factors:

- 1. Mammal damage management as conducted by WS in the State is not regional or national in scope.
- 2. The proposed action would pose minimal risk to public health and safety. Risks to the public from many of the methods described in the EA were determined to be low in a formal risk assessment (USDA 1997). Based on the analyses in the EA, the methods available would not adversely affect human safety based on their use patterns.
- 3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. WS' standard operating procedures and adherence to applicable laws and regulations would further ensure that WS' activities do not harm the environment.
- 4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to mammal damage management, this action is not highly controversial in terms of size, nature, or effect.
- 5. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
- 6. The proposed action would not establish a precedent for any future action with significant effects.
- 7. No significant cumulative effects were identified through the assessment. The EA analyzed cumulative effects on target and non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State of North Carolina.

- 8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
- 9. WS has determined that the proposed program would not adversely affect any federally listed T&E species currently listed in the State and the USFWS has concurred with WS' determination. In addition, WS has determined that the proposed activities would not adversely affect Statelisted species.
- 10. The proposed action would be in compliance with all applicable federal, state, and local laws.
- 11. No significant cumulative effects were identified by this assessment or other actions implemented or planned within the area.

### Rationale

The rationale for this decision is based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety, and the best available science. The foremost considerations are that: 1) mammal damage management would only be conducted by WS at the request of landowners/managers, 2) management actions are consistent with applicable laws, regulations, policies and orders, and 3) no adverse impacts to the environment were identified in the analysis. As a part of this Decision, the WS program in North Carolina would continue to provide effective and practical technical assistance and direct management techniques that reduces damage and threats of damage.

Charles S. Brown, Director-Eastern Region

USDA/APHIS/WS Raleigh, North Carolina Date

# XVI. LITERATURE CITED

- Slate, D.A., R. Owens, G. Connolly, and G. Simmons. 1992. Decision making for wildlife damage management. Trans. N. A. Wildl. Nat. Res. Conf 57:51-62.
- USDA. 1997. Animal Damage Control Program: Final Environmental Impact Statement (revised). USDA/APHIS/WS-Operational Support Staff, 4700 River Road, Unit 87, Riverdale, Maryland 20737.
- USDA. 2005a. Supplemental Environmental Assessment: Oral vaccination to control specific rabies virus variants in raccoons, gray fox, and coyotes in the United States. USDA-APHIS-WS, 4700 River Road, Unit 87, Room 2D05, Riverdale, Maryland 20782.
- USDA. 2005b. Environmental Assessment White-tailed deer damage management in North Carolina. USDA-APHIS-WS, 6213 E Angus Drive, Raleigh, North Carolina 27617.
- USDA. 2011. Environmental Assessment Reducing mammal damage in the State of North Carolina. USDA-APHIS-WS, 6213 E Angus Drive, Raleigh, North Carolina 27617.